

**DOCKET NO. D-87-45 CP-2**

**DELAWARE RIVER BASIN COMMISSION**

**Antietam Valley Municipal Authority  
Wastewater Treatment Plant Upgrade  
St. Lawrence Borough, Berks County, Pennsylvania**

**PROCEEDINGS**

This docket is issued in response to an application submitted to the Delaware River Basin Commission (DRBC or Commission) by Spotts, Stevens and McCoy Group on behalf of the Antietam Valley Municipal Authority on February 2, 2006 (Application), for review of wastewater treatment plant (WWTP) upgrade project. The project was approved by the Pennsylvania Department of Environmental Protection (PADEP) on July 21, 2006, via its Water Quality Management Permit No. 6675089 subject to approval by the Commission.

The Application was reviewed for inclusion/continuation of the project in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact*. The Berks County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on September 27, 2006.

**A. DESCRIPTION**

**1. Purpose.** The purpose of this project is to modify a 1.225 mgd WWTP to more effectively process hydraulic surges due to wet weather-related infiltration and inflow (I&I) to the collection system. No increase in treatment capacity is proposed, as the docket holder will continue its efforts to control I&I.

**2. Location.** The project is located on Butter Lane in St. Lawrence Borough just east of the intersection of State Route 562 and U.S. Route 422. The WWTP will continue to discharge to Antietam Creek in the Schuylkill River Watershed through the existing outfall.

The WWTP is located at River Mile 92.47 - 66.1 - 4.4. The project is located in the drainage basin of the Schuylkill River in an area conditioned as Modified Recreational within the Schuylkill River Scenic Designation.

The project outfall is located in the Antietam Creek Watershed found on the *Birdsboro*, PA USGS Quad as follows:

<b>OUTFALL NO.</b>	<b>LATITUDE (N)</b>	<b>LONGITUDE (W)</b>
001	40° 19' 51"	75° 52' 25"

**3. Area Served.** The docket holder's WWTP will receive wastewater flows from the predominantly residential portions of St. Lawrence Borough, Mount Penn Borough, and Exeter and Lower Alsace Townships, all within Berks County, Pennsylvania.

For the purpose of defining the Area Served, the Application is incorporated herein by reference consistent with conditions contained in the DECISIONS section of this docket.

**4. Physical features.**

**a. Design criteria.** The existing WWTP consists of three trains of treatment processes that operate in parallel mode. The original plant was constructed in 1935 and upgraded or expanded in 1941, 1949, 1955, 1957, 1968 and 1989. The biological processes include contact stabilization, activated sludge and oxidation ditch treatment. Following chlorine disinfection, the WWTP effluent is discharged to Antietam Creek in the Schuylkill River Watershed. No increase in the annual average treatment capacity of 1.225 mgd of is proposed. The proposed modifications of the WWTP will enable the docket holder to meet NPDES Permit limits during wet weather-related surges, including a peak hourly flow of 4.37 mgd and a maximum monthly flow of 2.45 mgd. These modifications of the WWTP include the construction of several new treatment facilities and the expansion of several existing tanks, as described below.

**b. Facilities.** The original STP (Plant No. 1) consists of a screening device, a comminutor, two primary settling tanks, two aeration and two reaeration tanks, two final settling tanks, three anaerobic sludge digesters, and a vacuum filter. Plant No. 2, built in 1969 consists of a barminutor, one contact aeration and one reaeration tank, one aerobic digester, and one final settling tank. Two-unit chlorine contact tanks were provided for effluent disinfection prior to discharge to Antietam Creek, approximately 4.5-river miles upstream from its confluence with the Schuylkill River. Via the WWTP upgrade during the late 1980s, nitrification was provided by the addition of two oxidation ditches and two final setting tanks. A grit chamber and a belt filter press were also constructed at that time.

The proposed upgrade of the 1.225 mgd WWTP will provide an additional final settling tank and an expansion of the existing chlorine contact tanks. The plant headworks and the nearby pumping station will also be modified to handle wet weather-related surges.

The project facilities are above the 100-year flood elevation.

Emergency power is provided for use during a disruption of primary electric supply.

Waste sludge is hauled off-site by a licensed hauler for deposit at a State-approved facility.

**c. Water withdrawals.** The potable water supply in the project service area is provided by Mount Penn Borough Municipal Authority. The water withdrawal from local wells and intakes is described in detail in Docket No. D-69-161 CP, which was approved on October 28, 1969 and is not subject to expiration.

**d. NPDES Permit / DRBC Docket.** The NPDES Permit No. PA 0026646 approved by PADEP on October 18, 2004, includes final effluent limitations for the project discharge of 1.225 mgd to surface waters classified by the PADEP as a Cold Water Fishery. The proposed upgrade will not require an amendment of the NPDES Permit. The following average monthly effluent limits are among those listed in the NPDES permit and meet or are more stringent than the effluent requirements of the DRBC.

**EFFLUENT TABLE: DRBC Parameters (\*) Included in NPDES permit for Outfall 001**

<b>OUTFALL 001 (Discharge to Antietam Creek)</b>		
<b>PARAMETER</b>	<b>LIMIT</b>	<b>MONITORING</b>
pH (Standard Units)	6 to 9 at all times *	as required in the NPDES Permit
Total Suspended Solids	30 mg/l (85% minimum removal *)	as required in the NPDES Permit
Dissolved Oxygen	5 mg/l (minimum at all times)	as required in the NPDES Permit
CBOD (5-Day at 20° C)	25 mg/l (85% minimum BOD <sub>5</sub> removal *)	as required in the NPDES Permit
Ammonia Nitrogen (5-1 to 10-31) (11-1 to 4-30)	2.5 mg/l 7.5 mg/l	as required in the NPDES Permit
Fecal Coliform (5-1 to 9-30) (10-1 to 4-30)	200 colonies per 100 ml as a geo. avg. 4,100 colonies per 100 ml as a geo. avg.	as required in the NPDES Permit as required in the NPDES Permit
Total Residual Chlorine	0.36 mg/l	as required in the NPDES Permit
Total Dissolved Solids	1,000 mg/l *	1/week

**e. Cost.** The overall cost of this project is estimated to be \$3,620,000.

**f. Relationship to the Comprehensive Plan.** The original STP was included in the Comprehensive Plan by Resolution R-62-14 adopted on July 25, 1962. The expansion of this plant to treat 1.205 mgd was approved by Docket No. D-68-4 CP on April 24, 1968. The plant

was upgraded and rerated to process 1.225 mgd by Docket No. D-87-45 CP on September 22, 1987.

The WWTP will continue to discharge to Antietam Creek, located in the drainage basin of the Schuylkill River in an area conditioned as "Modified Recreational" within the Schuylkill River Scenic Designation, which was added to the Comprehensive Plan on October 26, 1988 by Docket No. D-78-50 CP (Revised).

### **B. FINDINGS**

The limits in the NPDES Permit are in compliance with Commission effluent quality requirements, where applicable.

The project is designed to produce a discharge meeting the effluent requirements as set forth in the *Water Quality Regulations* of the DRBC.

Near the project site, Antietam Creek has an estimated seven-day low flow with a recurrence interval of ten years of 1 mgd (1.55 cfs). The ratio of this low flow to the average design wastewater discharge from the 1.225 mgd plant is 0.82 to 1.

The nearest surface water intake of record for public water supply downstream of the project discharge is operated by the City of Pottstown Water Authority, approximately 14-river miles below the project discharge point.

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

### **C. DECISION**

I. Effective on the approval date for Docket No. D-87-45 CP-2 below:

a. The projects described in Docket Nos. D-87-45 CP and D-68-4 CP are removed from the Comprehensive Plan to the extent that they are not included in Docket No. D-87-45 CP-2; and

b. Docket Nos. D-87-45 CP and D-68-4 CP are terminated and replaced by Docket No. D-87-45 CP-2.

c. The project and the appurtenant facilities described in the Section A of this docket entitled, “Physical features” above shall be added to the Comprehensive Plan.

II. The project and appurtenant facilities as described in the Section A of this docket entitled, “Physical features” above are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

a. Docket approval is subject to all conditions, requirements, and limitations imposed by the PADEP in its NPDES permit and Part II Permit, and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission’s. The project upgrade will not require an amendment of the NPDES Permit.

b. The facility and operational records shall be available at all times for inspection by the DRBC.

c. The facility shall be operated at all times to comply with the requirements of the *Water Quality Regulations* of the DRBC.

d. The docket holder shall maintain and make available to DRBC upon request, records identifying the sources, volumes and characteristics of all wastewaters and sludges treated at the IWTP, as well as the dates when off-site wastes were received and treated.

e. The docket holder shall comply with the requirements contained in the Effluent Table in the Section A.4.d. of this docket.

f. Except as otherwise authorized by this docket, if the docket holder seeks relief from any limitation based upon a DRBC water quality standard or minimum treatment requirement, the docket holder shall apply for approval from the Executive Director or for a docket revision in accordance with Section 3.8 of the *Compact* and the *Rules of Practice and Procedure*.

g. If at any time the receiving treatment plant proves unable to produce an effluent that is consistent with the requirements of this docket approval, no further connections shall be permitted until the deficiency is remedied.

h. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

i. Sound practices of excavation, backfill and reseedling shall be followed to minimize erosion and deposition of sediment in streams.

j. Within 10 days of the date that construction of the project has started, the docket holder shall notify the DRBC of the starting date and scheduled completion date.

k. Upon completion of construction of the approved project, the docket holder shall submit a statement to the DRBC, signed by the docket holder's engineer or other responsible agent, advising the Commission that the construction has been completed in compliance with the approved plans, giving the final construction cost of the approved project and the date the project is placed into operation.

l. This docket approval shall expire three years from date below unless prior thereto the docket holder has commenced operation of the subject project or has expended substantial funds (in relation to the cost of the project) in reliance upon this docket approval.

m. The docket holder is permitted to treat and discharge the categories of wastewaters defined in the "Area Served" section of this docket.

n. The docket holder shall make wastewater discharge in such a manner as to avoid injury or damage to fish or wildlife and shall avoid any injury to public or private property.

o. No sewer service connections shall be made to newly constructed premises with plumbing fixtures and fittings that do not comply with water conservation performance standards contained in Resolution No. 88-2 (Revision 2).

p. Nothing in this docket approval shall be construed as limiting the authority of DRBC to adopt and apply charges or other fees to this discharge or project.

q. The issuance of this docket approval shall not create any private or proprietary rights in the waters of the Basin, and the Commission reserves the right to amend, suspend or rescind the docket for cause, in order to ensure proper control, use and management of the water resources of the Basin.

r. A complete application for the renewal of this docket, or a notice of intent to cease the operations (withdrawal, discharge, etc.) approved by this docket by the expiration date, must be submitted to the DRBC at least 12 months prior to the expiration date below (unless permission has been granted by the DRBC for submission at a later date), using the appropriate DRBC application form. In the event that a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below, the terms and conditions of this docket will remain fully effective and enforceable against the docket holder pending the grant or denial of the application for docket approval.

s. The Executive Director may modify or suspend this approval, or require mitigating measures, pending additional review.

t. The docket holder and any other person aggrieved by a reviewable action or decision taken by the Executive Director or Commission pursuant to this docket may seek an administrative hearing pursuant to Articles 5 and 6 of the Commission's *Rules of Practice and Procedure*, and after exhausting all administrative remedies may seek judicial review pursuant to Article 6, section 2.6.10 of the *Rules of Practice and Procedure* and section 15.1(p) of the Commission's *Compact*.

**BY THE COMMISSION**

**DATE APPROVED:**           **September 27, 2006**

**EXPIRATION DATE:**       **October 18, 2009**